

said solenoid valves of said rear steering means control said slide valves; and said maneuvering system having a control means interlinking said steering hydraulic cylinders, and controlling coordinated turning of both said front supports and said rear supports.

14. (New) The steerable machine for breaking up ground as claimed in claim 13, wherein:

    said control means further comprises potentiometric position detectors in mechanical connection with each steering hydraulic cylinder, and electrically connected to an electronic control unit.-

## II. Remarks

### A. General

New claim 11 has been added to more clearly define the position signal that was originally claimed in claim 9. No new matter has been added to the application with the addition of claim 11, and specification support for the new claim can be found on page 5, lines 27-31. It is believed that claim 11 is allowable over the cited prior art of record because none of the cited references disclose a position signal of the rear wheel or track, that has a travel switch being wired to the electronic control unit as presently claimed.

New claims 12-14 have also been added to more clearly claim the present invention. No new matter has been added to the application with the addition of claims 12-14, and support for these claims can be found on pages 2-3 of the specification.

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New claims 12-14 are patentable over the cited prior art of record because the prior art lacks a steerable machine having a pair of rollable front supports that are rotatable about a front vertical axis and are controlled by power steering. The prior art also lacks a pair of rollable rear supports that are pivotable about a rear vertical axis and are controlled by a steering hydraulic cylinder.

Original claims 2, 4 and 5 have been cancelled due to the incorporation of their subject matter into original claim 1.

Claims 3 and 7 have been amended to more clearly define the rod elements.

#### **B. Specification**

The specification has been amended so that it no longer makes reference to Italian patent no. V198U000098 and to correct minor informalities. The specification makes reference to U.S. patent no. 6,173,512 instead. The U.S. patent claims priority to Italian patent no. V198U000098. No new matter has been added to the application through the amendment of the specification. A copy of U.S. patent no. 6,173,512 is enclosed.

#### **B. Rejections based on 35 U.S.C. §112 - 2<sup>nd</sup> paragraph**

*Claims 2-5 and 8-9 are rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

The subject matter of claim 2 has been incorporated into claim 1, thereby rendering the rejection of claim 2 moot. However, the subject matter of claim 2 that was added to claim 1 has been modified so that the language of the second actuator

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being integral with the frame has been removed.

Claim 9 has been amended by removal of the reference to the position signal, which is more clearly defined in the new claim 11.

### **C. Rejections based on 35 U.S.C. §102(b)**

*Claims 1-10 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by the Files reference.*

The Files reference does not show or disclose the elements of the second actuator having a second rod end fixed to the plate as claimed in the present invention. In the Files reference, the hydraulic cylinder 32 is in communication with the piston rod 34 that is connected to cross-pin 25, not a plate, as claimed.

The Files patent also lacks the element of the first articulation means being for moving the chassis with respect to a fixed point on the frame in order to move the rear support inward of the frame, as claimed in the present invention. In Files, the articulation 49 does not allow for the chassis to move *inward of the frame*, as presently claimed. As shown in Fig. 2, the cylinder 51 would prevent such movement inward of the frame. Actually, the chassis 45 would have a very limited range of motion, most likely less than 180 degrees, which would ultimately not allow the chassis to move inward of the frame, only toward it.

The Files device also fails to show or disclose the element of the first actuator having a first hydraulic jack with a first rod end fixed to the yoke, as presently claimed. The Files device shows a cylinder 51 that is connected to control arm 57. The control arm 57 is connected to collar 42 which in turn is connected to bearing rings 44. (File,



Fig. 5). Thus the rod 54 of cylinder 51 is not connected to the yoke 23.

Since the Files reference fails to show or disclose all the elements of the claimed invention, it fails to anticipate the claimed invention.

**Claims 2-10** depend from independent claim 1. The Files reference does not anticipate the claimed invention as set forth in newly amended claim 1 for the reasons set forth above, and as such, Files does not anticipate dependent claims 2-10. It is therefore respectfully requested that all the claims be allowed to issue.

### III. Conclusion

The application has been amended to overcome the objections and rejections of record. It is now believed the application is in condition for allowance and therefore respectfully requested the claims be allowed to issue.

If any other issues are outstanding and it would expedite the prosecution of this application, the Examiner is encouraged to contact, by telephone, the attorney of record at the following number.

Respectfully submitted,

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Amended Version of Claims Showing Changes Made Thereto

Serial No. 09/531,565

Please amend the claims as follows:

- -1. (Amended) A steerable machine for breaking up ground comprising:

a frame;

at least one pair of rollable front supports and at least one pair of rollable rear supports, each of said front and rear supports including a chassis secured to the frame and said front supports being rotatable about a front vertical axis and at least one of the rear supports being pivotable about a rear vertical axis;

said chassis includes a yoke that supports said rear support, and has a vertical pivot journal coupled to revolve on a support plate fixed to an end of a second actuator;

said second actuator comprises a second hydraulic jack set with a vertical axis, which has a second rod with a second rod end fixed to said plate and a second cylinder end, wherein said rod slides, integral with said frame;

the cylinder of said second hydraulic jack is an integral part of said frame being connected thereto by means of a first articulation for moving said chassis with respect to a fixed point on said frame in order to move the rear rotatable support inward of said frame;

at least one driver's cab located in said frame;

a means for breaking up the ground connected to said frame;

traction means supported by said frame for rotating at least one of said rotatable

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supports;

at least one first actuator operatively coupled to the rear supports;  
a maneuvering system accessible from said driver's cab for operating the actuator for rotating said rear supports about the rear vertical axis while turning the front supports of the machine.

2. (Cancelled).

3. (Amended) The machine according to claim [2] 1, wherein:  
said first actuator comprises a first hydraulic jack having a first rod with a first rod end fixed to said yoke and a first cylinder end,  
wherein said rod slides, fixed to said plate.

4. (Cancelled).

5. (Cancelled).

6. The machine according to claim 1, wherein:  
the chassis of said front supports are interlinked by means of a second articulation, at least one of said chassis cooperating with a third actuator for rotating the chassis around a vertical axis.

7. (Amended) The machine according to claim 6, wherein:



said third actuator comprises a third hydraulic having a third rod with a third rod end pivoted to said chassis of said front support and a third cylinder end, wherein said rod slides, pivoted on said frame.

8. The machine according to claim [2] 1, wherein:

said jacks comprise hydraulic two-way jacks connected to a distribution circuit of oil under pressure.

9. (Amended) The machine according to claim 8, wherein:

said distribution circuit comprises:

a first slide valve piloted by solenoid valves that supply said first hydraulic jack;

a third slide valve controlled by said maneuvering system of said machine that

supply said third hydraulic jack;

a first position detector cooperating with said first hydraulic jack;

a third position detector cooperating with said third hydraulic jack;

[a position signal of said rear wheel or track;]

an electronic control unit electrically coupled to said position detectors, to said position signal and to said solenoid valves of said first slide valve.

10. The machine according to claim 9, wherein:

said position detectors comprise potentiometric detectors. - -

Amended Version of Claims Showing Changes Made Thereto

Serial No. 09/531,565

**Please amend the paragraph in the specification on page 4, lines 26-32 as follows:**

- -In particular the cylinder 17, as seen in Fig. 4, is connected to the frame 2 by means of a first articulation generally indicated by 18 and of the type described in [the aforementioned Italian patent V198U000098] U.S. Patent No. 6,173,512. The first actuation group comprises a four-bar linkage wherein the bars 18a and 18b are moved by [hydraulic] hydraulic actuators. This allows the whole chassis 8 to move with the track 4 connected to it, in any one of the directions of the arrow 19 with reference to a fixed point 20 on the frame, to retract the track 4 into the frame of the machine as seen in Fig. 1.- -

**Please amend the paragraph in the specification on page 6, lines 13-17 as follows:**

- -The track 4 is set in its retracted position inside the frame and then is reset in the extracted position that can be seen in Fig. 4 by acting from inside the driver's cab by means of control systems of the first articulation 18, that has not been illustrated, that is thereby made to turn in any of the directions of the arrow 19 and whose operation is illustrated in [the aforementioned Italian patent V198U000098] U.S. Patent No. 6,173,512. - -

